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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,831	07/30/2003	Akira Tsumiyama	SN-US035024	7279

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EXAMINER

LUONG, VINH

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,831

Applicant(s)

TSUMIYAMA, AKIRA

Examiner

Vinh T. Luong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 15-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


Vinh T. Luong
Primary Examiner

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Attachments 1-3.

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1. Applicant's election without traverse of species of Figs. 1-9 in the reply filed on April 14, 2005 is acknowledged.

2. Claims 9 and 15-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 14, 2005.

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because of the implied phrase "is disclosed." Correction is required. See MPEP § 608.01(b).

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2 and 10-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "substantially" in claims 2 and 10 is a relative term which renders the claims indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear, e.g., in claim 2, what

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range of angles defined by first and second planes is required in order to be considered as being “substantially perpendicular.”

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 4, 6, and 7, and claim 2, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Evett (US Patent No. 4,100,820 cited by Applicant).

Regarding claim 1, Evett teaches a bicycle control device comprising:

a mounting portion 12, 78, etc. adapted to be coupled to a bicycle;

a control mechanism 44, etc. coupled to the mounting portion 12, 78, etc; and

a control lever 28 operatively coupled to the control mechanism 44, etc., the control lever 28 including an attachment section (see Attachment 1), an intermediate section (Att. 1) extending from the attachment section (Att. 1) and an actuating section 28b (Fig. 17 and Fig. 1 in Att. 1) extending from the intermediate section (Att. 1), the attachment section (Att. 1) being operatively coupled to the control mechanism 44, etc., at least one of the intermediate section (Att. 1) and the actuating section (Att. 1) having a hollow zone (e.g., Fig. 4, Att. 1) formed therein that extends axially along the at least one of the intermediate section (Att. 1) and the actuating section (Att. 1) of the control lever 28.

Claim 1 and other claims below are anticipated by Evett because Evett teaches each and every positively claimed structure. It is well established that a claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not

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differentiate the claimed apparatus from a prior art apparatus” if the prior art teaches all the structural limitations of the claims. *Ex parte Masham*, 2 USPQ2d 1647 (BPAI 1987). Further, the functional limitations of a claim may not be given patentable weight where those limitations are inherent in a prior art reference. *In re Schreiber*, 44 USPQ2d 1429 (CAFC 1997). In addition, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Regarding claim 2, the control lever 28 is operatively coupled to the control mechanism 44, etc. to inherently move along a first plane between a rest position and a operating position and along a second plane substantially perpendicular to the first plane between the rest position and a first position vertically spaced from the rest position in a manner similar to Applicant's Figs. 8 and 9 (see Fig. 17 in Att. 1).

Regarding claim 4, the control mechanism includes a brake control mechanism 34. *Ibid.*, col. 3, lines 28-45

Regarding claim 6, the control lever 28 is constructed of metal, i.e., a cast material. See col. 13, lines 10-19. Note that the patentability of product does not depend on its method of production (“drilled in order to form the hollow zone”). *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and MPEP 2113.

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Regarding claim 7, Evett's metal inherently includes aluminum in order to be lightweight. Note that aluminum is a notorious well known material in bicycle art as evidenced by the cited references. See, e.g., US Patent No. 5,584, 210 (col. 2, lines 38-45) and US Patent No. 4,308,761 (col. 4, lines 1 and 2). See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) and MPEP 2144.07.

9. Claims 10-14, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Furuta (US Patent No. 5,775,168)

Regarding claim 10, Furuta teaches a bicycle control device comprising:

a mounting portion 3 adapted to be coupled to a bicycle handlebar 1;

a control mechanism 9 coupled to the mounting portion 3; and

a control lever 2 or 2, 40 operatively coupled to the control mechanism 9 to move along a first plane (P1. See Attachment 2) between a rest position and a operating position and along a second plane (P2, Att. 2) substantially perpendicular to the first plane (Att. 2) between the rest position and a first position vertically spaced from the rest position, the control lever 2 or 2, 40 including an attachment section (Att. 2) and an actuating section (Att. 2) extending from the attachment section (Att. 2); the attachment section (Att. 2) being operatively coupled to the control mechanism 9, the actuating section (Att. 2) having a first actuation surface extending in a direction substantially perpendicular to the first plane and an inclined second actuation surface (Att. 2) facing substantially away from the first actuation surface (Att. 2) downwardly and towards the handlebar 1, 1A, the inclined second actuation surface (Att. 2) extending in a direction intersecting the first and second planes, the inclined second actuation surface (Att. 2) having a transverse height that is at least one-half of the transverse height of the first actuation

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surface (Att. 2) with the transverse heights being measured in directions perpendicular to the first plane (P1).

Claim 10 and other claims below are anticipated by Furuta because Furuta teaches each and every positively claimed structure. See *Ex parte Masham*, *In re Schreiber*, and *In re Casey*, *supra*.

Regarding claim 11, the control mechanism 9 includes a shift control mechanism that is arranged and configured to control movement of a shift control cable 8 upon movement of the control lever 2 or 2, 40 along the second plane (P2).

Regarding claim 12, the control lever 2 or 2, 40 includes a brake cable attachment portion arranged and configured to pull a brake control cable (Fig. 1, Att. 2) upon movement of the control lever 2 or 2, 40 from the rest position to the operating position when a substantially rearward force is applied to the first actuation surface (Att. 2).

Regarding claim 13, the control lever 2 or 2, 40 is normally biased toward the rest position in order to release the brake control cable (Att. 2) after moving the control lever 2 or 2, 40 to the operating position and releasing the control lever 2 or 2, 40.

Regarding claim 14, the control mechanism 9 includes a shift control mechanism that is arranged and configured to control movement of a shift control cable 8 upon movement of the control lever 2 or 2, 40 along the second plane (P2).

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 1, 3, 5, and 8, and claims 10-14, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Furuta.

Regarding claim 1, based on the drawings, Furuta teaches a bicycle control device comprising:

a mounting portion 3 adapted to be coupled to a bicycle;

a control mechanism 9 coupled to the mounting portion 3; and

a control lever 2 or 2, 40 operatively coupled to the control mechanism 9, the control lever 2 or 2, 40 including an attachment section (Att. 2), an intermediate section (Att. 2) extending from the attachment section (Att. 2) and an actuating section (Att. 2) extending from the intermediate section (Att. 2), the attachment section (Att. 2) being operatively coupled to the control mechanism 9.

Furuta teaches the invention substantially as claimed. However, Furuta does not teach at least one of the intermediate section (Att. 2) and the actuating section (Att. 2) having a hollow zone (e.g., Fig. 4, Att. 2) formed therein that extends axially along the at least one of the intermediate section (Att. 2) and the actuating section (Att. 2) of the control lever 2 or 2, 40.

It is common knowledge in the art to form the hollow zone in the lever that extends axially along the at least one of the intermediate section and the actuating section of the control lever in order to reduce the weight of the lever. The hollow lever is notoriously well known in bicycle art as evidenced by the cited references. See, e.g., hollow lever 10 in UK Patent Application No. 2 167 839 A, hollow lever 4 in US Patent No. 4,759,230, hollow lever 4 in US Patent No. 5,009,119, hollow lever 4 in US Patent No. 5,609,064, and hollow lever 5 in US Patent No. 3,176,536.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the hollow zone in Furuta's lever that extends axially along the at least one of the intermediate section and the actuating section of the control lever in order to reduce the weight of the lever as taught or suggested by common knowledge in the art.

Regarding claim 3, Furuta's control mechanism includes a shift control mechanism 9 that is arranged and configured to control movement of a shift control cable 8 upon movement of the control lever 2 or 2, 40.

Regarding claim 5, the hollow zone that is formed in the actuating section and has a plug mounted therein at a free end of the actuating section to form a hollow interior area is notoriously well known. See, e.g., the plug in UK Patent Application No. 2 167 839 A (Att. 3).

Regarding claim 8, the hollow zone which is a blind bore that is open at a free end of the actuating section of the control lever would have been considered as a matter of choice in design since the function since the claimed structures and the function they perform are the same as the prior art. *In re Chu*, 66 F.3d 292, 36 USPQ2d 1089 (Fed. Cir. 1995) citing *In re Gal*, 980 F.2d 717, 719, 25 USPQ2d 1076, 1078 (Fed. Cir. 1992).

Regarding claims 10-14, Furuta teaches the invention substantially as claimed. However, Furuta does not explicitly teach in the specification the size or dimension, such as, the inclined second actuation surface having a transverse height that is at least one-half of the transverse height of the first actuation surface with the transverse heights being measured in directions perpendicular to the first plane.

It is common knowledge in the art to form Furuta's lever to have the size or dimension, such as the inclined second actuation surface having a transverse height that is at least one-half of the transverse height of the first actuation surface with the transverse heights being measured in directions perpendicular to the first plane in order to optimize the size/shape of Furuta's lever. See legal precedents regarding changes in size/proportion in MPEP 2144.04.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form Furuta's lever to have the size or dimension, such as the inclined second actuation surface having a transverse height that is at least one-half of the transverse height of the first actuation surface with the transverse heights being measured in directions perpendicular to the first plane in order to optimize the size/shape of Furuta's lever as taught or suggested by common knowledge in the art.

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claim 10 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3 of U.S. Patent No. 6,647,823 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because Applicant apparently uses slightly different terminology in order to claim the same or substantially the same invention. *In re Griswold*, 150 USPQ 804 (CCPA 1966). See, e.g., the comparison among claim 10 of this application and claims 1 and 3 of Pat.'823 below.

<u>Common</u>	<u>Appl.'831</u>	<u>Pat.'823</u>
	mounting portion	
control mechanism		
control lever		
	first plane	brake operating plane
	second plane	shifting plane (claim 3)
	attachment section	
	actuating section	

Although claim 10 of this application calls for the mounting portion, attachment section, and actuating section, however, the control device claimed in claims 1 and 3 of Pat.'823 inherently must have the mounting portion, attachment section, and actuating section in order to be operative for its intended design. The mounting portion, attachment section, and actuating section are conventional in the bicycle control device art as evidenced by the cited references. It would have been obvious to one having ordinary skill in the art at the time the invention was

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made to form mounting portion, attachment section, and actuating section in the control device claimed in Pat.'823 in order to have the claimed device in claim 10 of this application as taught or suggested by common knowledge in the art.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Wesling et al. (lever 10), Nagano'878 (see abstract), Nagano'119 (hollow lever), and Nagano'230 (hollow lever).

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 571-272-7099. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Luong

June 15, 2005



Vinh T. Luong
Primary Examiner

ATTACHMENT # 1

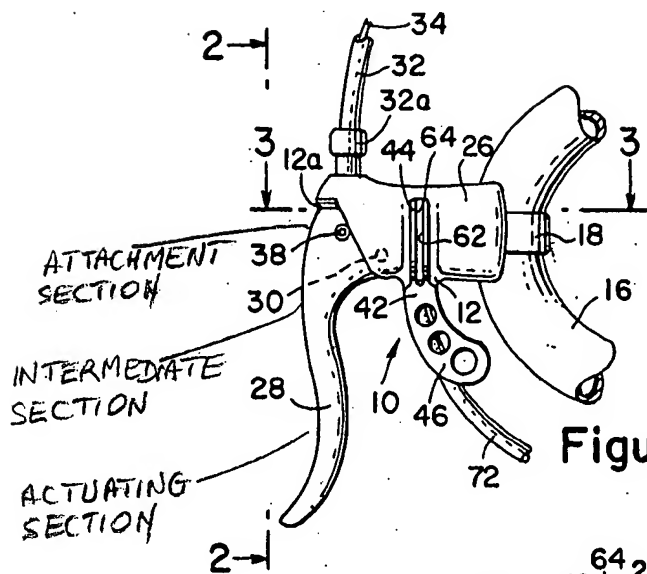


Figure 1

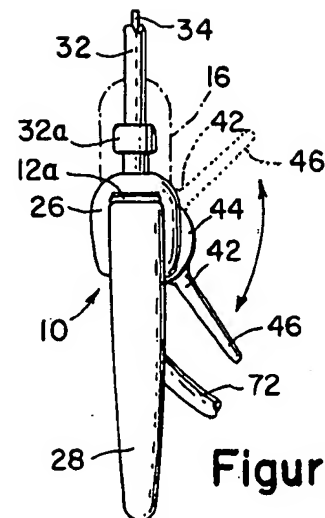


Figure 2

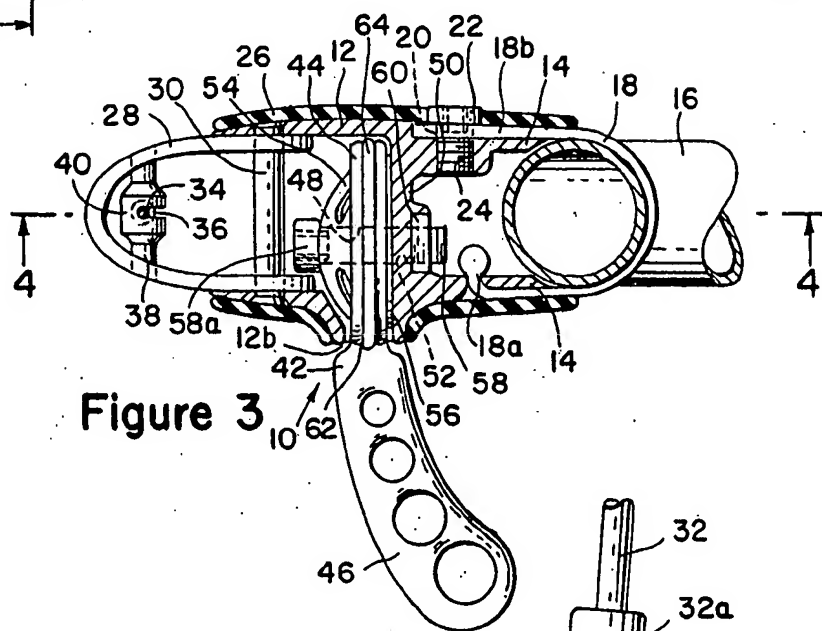


Figure 3

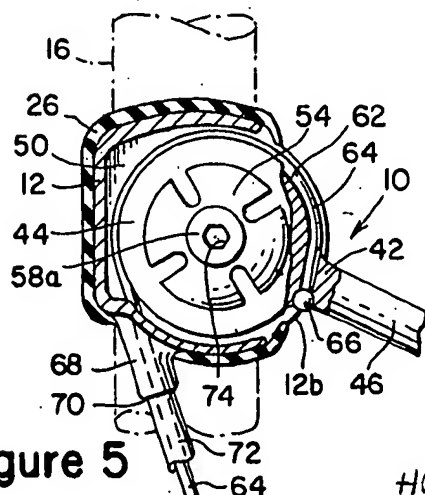


Figure 5

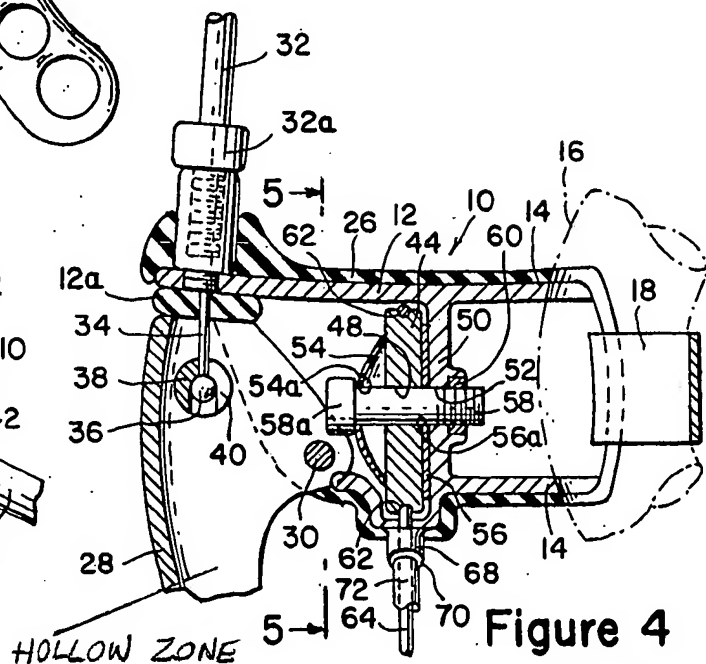


Figure 4

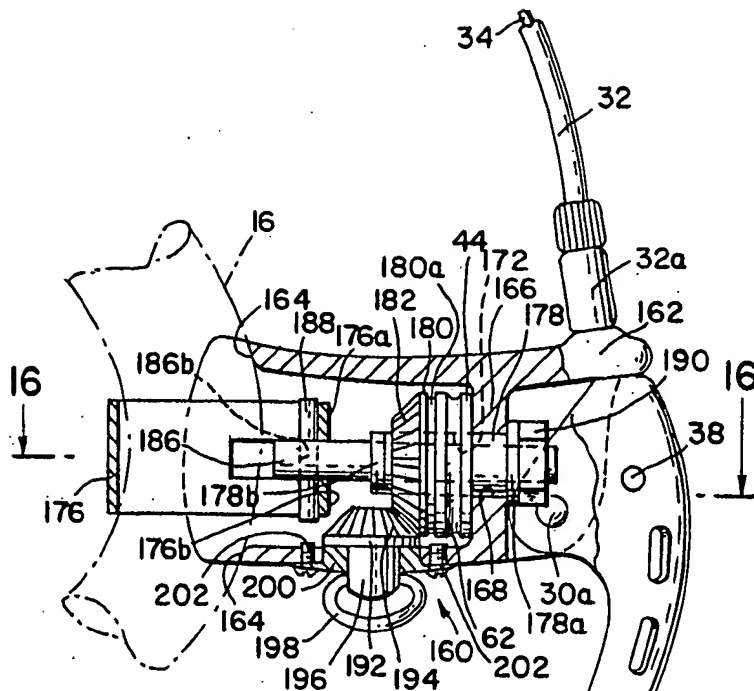


Figure 15

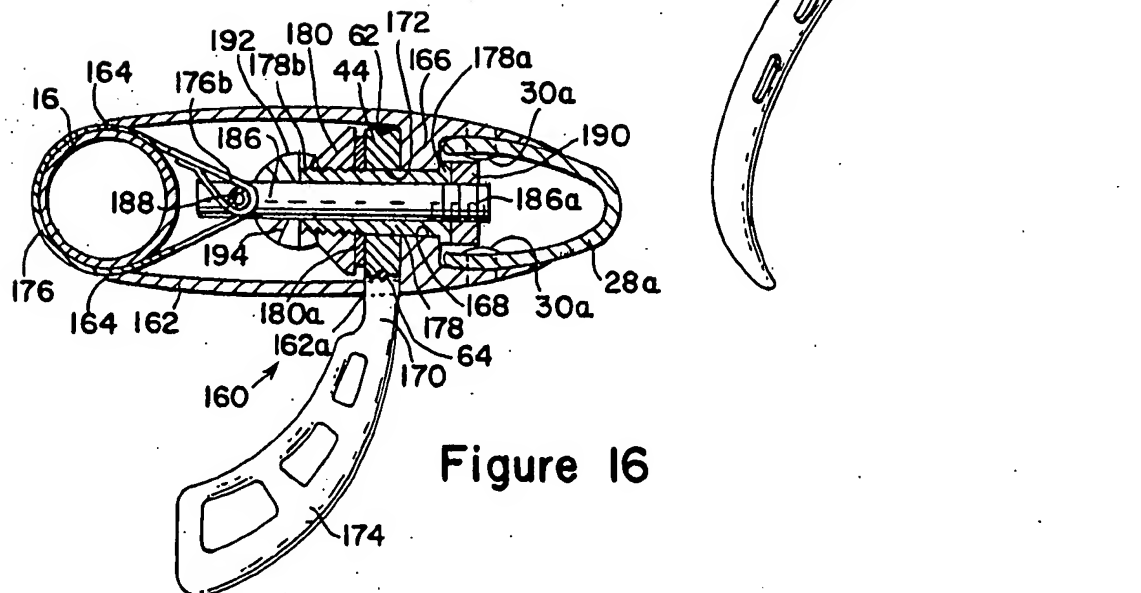


Figure 16

ATTACHMENT # 2

FIG. 1

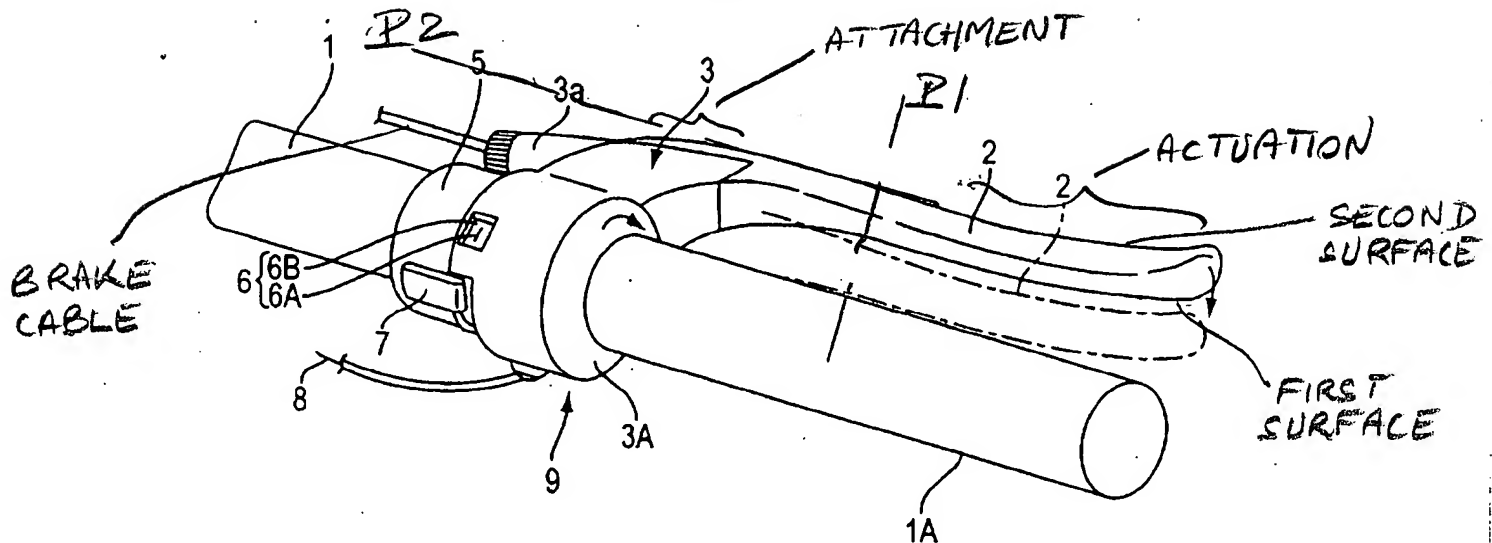
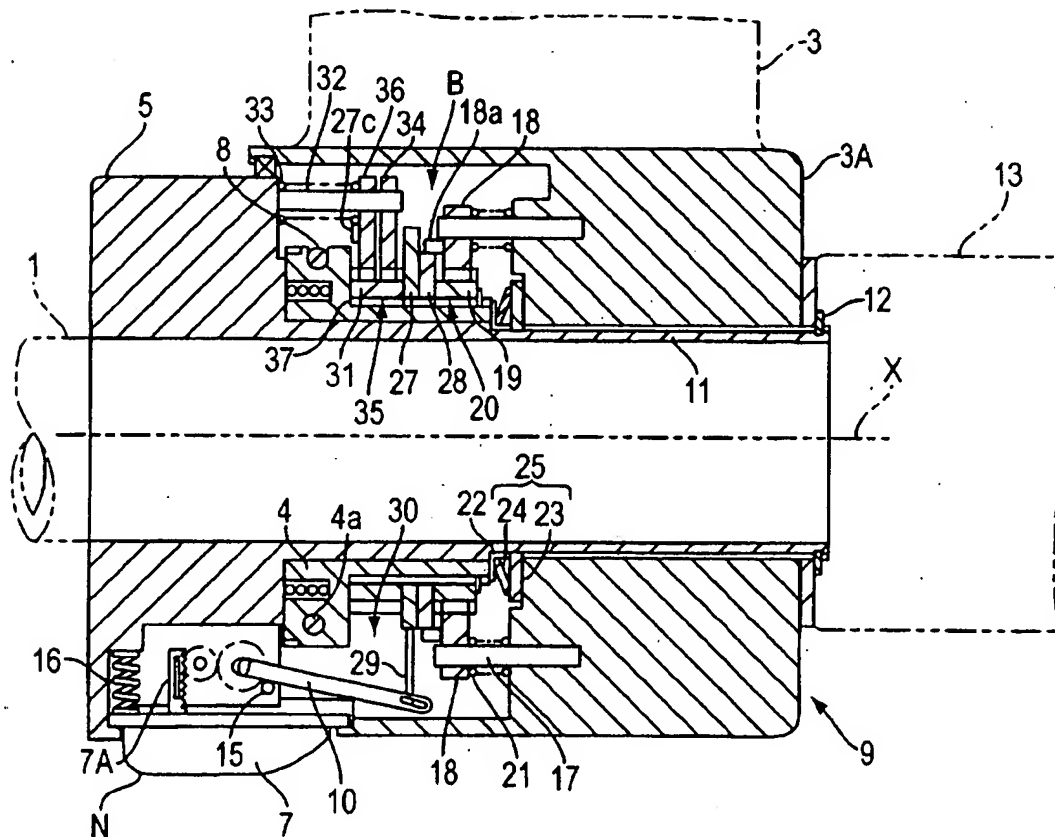
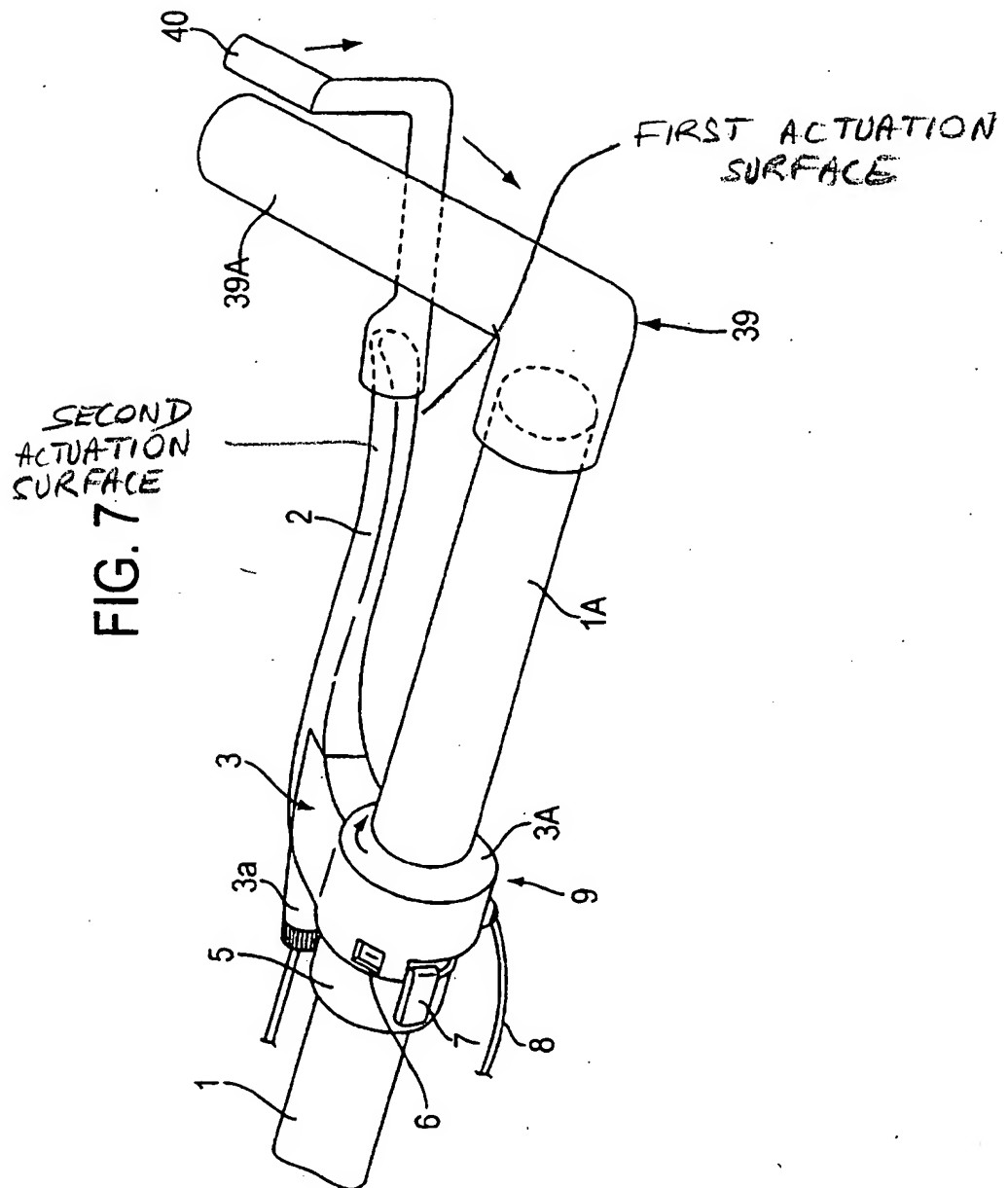


FIG. 2





ATTACHMENT # 3

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